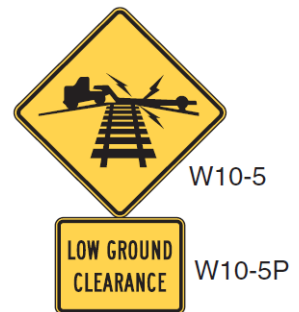


VIRGINIA DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING DIVISION
INSTRUCTIONAL & INFORMATIONAL MEMORANDUM

GENERAL SUBJECT: Signs		NUMBER: IIM-TE-315.1
		SUPERSEDES: MM-315
SPECIFIC SUBJECT: Low Ground Clearance Highway Rail Grade Crossing Sign (W10-5)		DATE: August 18, 2016
		SUNSET DATE: Upon Incorporation into the VA Supplement
DIRECTED TO: Regional Operations Directors Regional Traffic Engineers Residency Engineers/Administrators Regional Operations Maintenance Managers		APPROVAL: /original signed by/ Raymond J. Khoury, P.E. State Traffic Engineer Richmond, VA August 18, 2016

Changes are shaded.

On January 9, 1997, the Federal Highway Administration published a final rule, through the Federal Register, that provided a new graphic in the MUTCD for low ground clearance highway rail grade crossing warning signs (W10-5 Attached). This The W10-5 sign is intended to be used to warn motorists, particularly those with long wheelbase vehicles or low ground clearance trailers, of highway rail grade crossings that have sufficiently abrupt profile conditions that could create a hang-up condition.



Based on warrant criteria for the installation of these signs, as developed by Mobility Management Division's Highway/Rail Safety Section and the Virginia Department of Rail and Public Transportation, crossings have been identified and a listing of these crossings has been provided to the District Traffic Engineers as well as the Resident Engineers, so that signs may be installed as appropriate. Mobility Management Traffic Engineering Division's Highway/Rail Safety Section will maintains the listing of crossings warranting these signs, adding or removing locations as appropriate, and will notify the District Regional Traffic Engineer and/or the Resident Engineer Residency Engineer/Administrator when changes occur.

Crossings identified as having abrupt profile conditions that could create a hang-up condition and are located within municipalities where the Department is not responsible for maintenance are indicated on the status list as well. Mobility Management Traffic Engineering Division's Highway/Rail Safety Section will notify the Central Office Local Assistance Division advising of the need for signing, and suggesting that the municipality(ies) be notified. When new locations

within these jurisdictions are added to the list, or former locations are removed, ~~Mobility Management~~ Traffic Engineering Division's Highway/Rail Safety Section will notify the Central Office Local Assistance Division.

Each ~~District~~ Region (and/or Residency as might be applicable) shall make every effort to ensure these signs are installed within 90 days. The ~~District Regional~~ Traffic Engineer (and/or Resident Engineer as might be applicable) shall provide sign installation dates to the Highway/Rail Grade Crossing Section.

It shall be encumbered on the ~~Resident Engineer~~ Residency Engineer/Administrator to inform the Highway/Rail Safety Section of work being accomplished that may affect the need for these signs. This includes, to the extent possible, reporting work performed by or for the railroad company. It is recognized that railroad companies will perform work at crossings without advising this agency. Therefore, all Residency and District/Region personnel should be instructed to notify the Resident Engineer when it is noted that the railroad is performing work at a highway rail grade crossing.

W10-5 Low ground clearance highway rail grade crossing warning signs and the supplemental W10-5P "Low Ground Clearance" plaques shall be installed for identified crossings in accordance with the MUTCD. In addition, signs shall be placed as per the following:

- ❑ A sign shall be installed between the advance railroad crossing sign (W10-1) and the crossbuck and as close as practical to the railroad right of way
- ❑ A sign shall be installed in advance of the last alternate route
- ❑ A sign should be installed a maximum of 150' past the alternate route to alert traffic approaching from either direction on the alternate route. Discretion should be used in determining the effective placement of this sign, and it may be desirable in some instances to place signs on the intersecting route approaches in lieu of past the alternate route to assure the signs are effective in alerting drivers to the restriction. On highways where the intersection of the last alternate route is via an interchange, signs should be installed on the alternate route for both directions.
- ❑ A sign should be installed at intersection locations of other roadways existing between the last alternate route and the crossing that will generate traffic that may have low ground clearance characteristics

~~Dual indication of signs on multi-lane roadways should be considered~~ On divided highways, it is recommended that signs be dual-indicated with placement adjacent to right-hand shoulder and in median when feasible.

CC:

Mohammad Mirshahi, P.E. - Deputy Chief Engineer
District Engineers/Administrators
Dr. Jose Gomez, P.E. - VCTIR Director
Bart Thrasher, P.E. – Location & Design Division Administrator
Lori Snider – Right-of-Way Division Administrator
Jessie Yung, P.E. - FHWA Virginia Division Acting Administrator
Vanloan Nguyen, P.E. – Traffic Engineering Division ADA for Traffic Control Devices
Mark Cole, P.E. – Traffic Engineering Division ADA for Safety Section

April 1, 2003

MEMORANDUM

TO: — District Traffic Engineers

FROM: — Ray Khoury, PE

SUBJECT: — Traffic Engineering Memorandum/ Policy for Installing W10-5, Highway/ Rail Low Ground Clearance Railroad Grade Crossing Signing

This cover letter for the attached MM Memo is to provide an overview as to the steps leading to the implementation of the policy procedure relating to the subject matter:

- January, 1997 FHWA in compliance with Federal Docket No. 95-8 enacted a final rule change to amend the 1988 MUTCD and include language relating to the design and installation of the W10-5 signs. (See Attached for specifications) The July 31, 1995 TE Memo defined the type of sheeting to be used on the "Railroad Advance Warning" signs. Since this is a warning sign the same type of sheeting should be applied to the W10-5 signs. The material shall be a high observation angle (Wide Angle) prismatic sheeting, VIP version.
- VDOT's Highway/ Rail Safety Section in conjunction with DRPT designed a template to identify highway/ rail grade crossing locations meeting the criteria within this category.
- The Highway/ Rail safety Section, as part of the federal mandated inventory program completed the first review of the 2,042 public at grade highway/ rail grade crossings in 2000. Based on these field reviews we have identified 497 VDOT maintained grade crossing locations and 191 crossing locations within urban areas meeting the criteria. These totals are subject to change as roadway alignment construction is completed as well as crossing surface work performed by railroad forces to alter the approach grades. These changes will be identified as the locations are revisited for inventory.
- In 2000 a memo with an attached inventory report, identifying locations in the appropriate district meeting the guidelines, was sent to the District Traffic Engineers requesting assistance in compliance with the signing installation. At that time some districts proceeded with the signing based on the information provided.
- HB 934 was introduced in the 2002 Session of the General Assembly, supported by DMV and passed. The bill is titled "Violations Committed at Railroad/ Highway Grade crossings" and identified penalties imposed on commercial driver/ employer for willful violations.

Based on the language of the Bill we felt this type of crossing condition could be classified in this category. The bill went into affect on July 1, 2002.

- As a result of this Bill, HB 934, it was decided a MM Memorandum was needed to provide documentation requiring the VDOT Districts and Cities to comply with the MUTCD.

The attached diagram and specifications for the W10-5 sign is provided for your information. We are requesting each District Traffic Engineer to proceed with the implementation of this memorandum. In addition, we request the Local Assistance Division to work with the cities to comply with the MUTCD. The appropriate listing per locality will be provided as needed.